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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/607,650

06/27/2003

Dennis D. Garvin

41097.001

2638

25005 7590 10/30/2007
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EXAMINER

RYCKMAN, MELISSA K

ART UNIT

PAPER NUMBER

3773

MAIL DATE

DELIVERY MODE

10/30/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/607,650

Applicant(s)

GARVIN, DENNIS D.

Examiner

Melissa Ryckman

Art Unit

3773

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on claims received 7/16/07.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 6-8, 13, 16 and 17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 6-8, 13, 16, 17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This office action is in response to claims filed 7/16/07.

Claim Objections

Claim 7 is objected to because of the following informalities: "the the distal end".

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 6-8, 16 and 17 is rejected under 35 U.S.C. 102(b) as being anticipated by Green et al. (US 4950284).

Regarding Claim 6, Green teaches a wound closure device for connecting tissue (10) comprising at least one pair of isolated first (14) and second (13) flexible straps (it is noted that all materials inherently have some degree of flexibility) wherein:

a. the first flexible strap (14) has a proximal end with a male connector and a distal end (portion near 25), and a ventral surface, a dorsal surface (fig. 7), and a longitudinal axis; and

b. the second flexible strap (13) has a proximal end with a female connector (19, 22) and a distal end, and a ventral surface, a dorsal surface, and a longitudinal axis,

wherein the female connector is configured to adjustably connect to the male connector of the first strap (fig. 6), wherein the female connector includes an opening transverse to the longitudinal axis extending completely through the female connector from the ventral surface to the dorsal surface for receiving the male connector (figs. 10), wherein the first strap has a plurality of barbs (25) on the ventral surface for engaging the tissue and the second strap has a plurality of barbs (26) on the ventral surface for engaging the tissue, and whereby the straps form a wound closure (fig. 1)

Regarding Claim 7, Green teaches the device of claim 6, wherein the distal end (near 25, Fig. 7) of the first strap (14) and the distal end (near 16, Fig. 2) of the second strap (13) are placed in the fascia (12) of the wound (fig. 7, the device is capable of being placed in the fascia of the wound).

Regarding Claim 8, Green teaches the device of claim 6, wherein the device is made of resorbable material (Column 2, proximate lines 10-14)

Regarding Claim 16, Green teaches the device of claim 6 wherein the female end comprises a buckle (17)

Regarding Claim 17, Green teaches the device of claim 16, wherein the male end of the first strap (14) includes a ratcheted surface to accommodate the buckle of the female end (fig. 7)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 6-8, 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buncke (US 5931855) in view of Sutherland et al. (US 4730615).

Buncke teaches a wound closure device for connecting tissue (20) comprising at least one pair of isolated first and second flexible straps (10) wherein: the first flexible strap (10) has a proximal (10b) end and a distal end, and a ventral surface and a dorsal surface a longitudinal axis (fig. 3); and the second flexible strap (10) has a proximal end (10b) and a distal end, and a ventral surface and a dorsal surface, and a longitudinal axis, wherein the straps are designed to be adjustably connected to each other (fig. 6); wherein the first strap and the second strap have a plurality of barbs (16) on the ventral surface for engaging the tissue, and whereby the straps form a wound closure wherein the first and second straps are placed in the fascia of the wound (fig. 3) wherein the device is made of resorbable material (Column 2, proximate lines 55-57)

Buncke fails to teach wherein the ends of the straps comprise a male connector with a ratcheted surface and a female connector with a buckle respectively, and the female connector is configured to adjustably connect to the male connector of the first strap, wherein the female connector includes an opening transverse to the longitudinal axis extending completely through the female connector from the ventral surface to the dorsal surface for receiving the male connector.

Sutherland teaches a device for connecting tissue wherein one end of the device comprise a male connector (18) with a ratcheted surface (22) and the other end comprises a female connector (12) with a buckle, and the female connector is configured to adjustably connect to the male connector, wherein the female connector (12) includes an opening transverse to the longitudinal axis extending completely through the female connector from the ventral surface to the dorsal surface for receiving the male connector (fig. 2) in order to provide a device for closing tissue with a locking means to prevent backward movement of the device once it is engaged, and further provide a locking mechanism that avoids problems such as inadequate material strength of the knot tied in the two ends, and takes less time and effort to implement in surgery (column 1, proximate lines 10-20 and 52). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Buncke with the locking configuration of Sutherland in order to provide a device for closing tissue with a locking means to prevent backward movement of the device once it is engaged, and further provide a locking mechanism that avoids problems such as

inadequate material strength of the knot tied in the two ends, and takes less time and effort to implement in surgery.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Buncke and Sutherland as applied to claim 6 above, and further in view of Ruff (US 6241747). The combination of Buncke and Sutherland teaches all limitations of preceding dependent claim 6, as previously described, but fails to teach wherein the first and second straps are placed in the wound by the use of a trochar. Ruff teaches a barbed tissue connector for closing wounds in tissue wherein the device is placed in the wound by use a trochar (80) in order to provide additional support to the strap during insertion (Column 6, proximate lines 60-61). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Buncke and Sutherland by using a trochar to insert the straps into the wound as taught by Ruff in order to provide additional support to the straps during insertion.

Response to Arguments

Applicant's arguments filed 7/16/07 have been fully considered but they are not persuasive. The applicant generally argues the following:

- The first and second strap of Green do not have a plurality of barbs
- Green does not teach the distal ends of the straps are in the fascia of the wound

- Buncke and Sutherland are nonanalogous art

The examiner respectfully disagrees with the applicant, Green teaches a plurality of barbs on the ventral surface of each strap (26 and 25). The distal ends of the straps of Green are capable of being placed in the facia of the wound. Buncke and Sutherland are analogous art as these are both closure devices.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melissa Ryckman whose telephone number is (571)-272-9969. The examiner can normally be reached on Monday thru Friday 7:30-4:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jackie Ho can be reached on (571)-272-4696. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MKR



MICHAEL J. HAYES
SUPERVISORY PATENT EXAMINER